

**In the claims:**

Please replace claim 1 with the following amended version thereof to incorporate the revisions set forth on the accompanying mark-up page:

- A<sub>1</sub>*
- |   |    |           |  |
|---|----|-----------|--|
| 1 | 1. | (Amended) | A flow through gas separator assembly, associated with a           |
| 2 |    |           | source of fluid, comprising:                                       |
| 3 |    | A)        | an inlet end, disposed to receive fluid from the fluid source; and |
| 4 |    | B)        | a conduit component coupled with said inlet end, for conveying the |
| 5 |    |           | fluid, said conduit component having walls comprised substantially |
| 6 |    |           | of a porous, hydrophobic material, that defines a tortuous path    |
| 7 |    |           | therethrough.  |

Please replace claim 2 with the following amended version thereof to incorporate the revisions set forth on the accompanying mark-up page:

- A<sub>2</sub>*
- |   |    |           |  |
|---|----|-----------|--|
| 1 | 2. | (Amended) | The gas separator assembly as defined in claim 1, further                  |
| 2 |    |           | comprising:  |
| 3 |    |           | an outlet end coupled with said conduit, said outlet end including an end  |
| 4 |    |           | cap member having a flow limiting orifice that generates back pressure     |
| 5 |    |           | within fluid traveling in said conduit in such a manner that said fluid is |
| 6 |    |           | pushed along said hydrophobic walls and into said tortuous path whereby    |
| 7 |    |           | gases contained within said fluid are separated out and released from said |
| 8 |    |           | fluid.   |

Please replace claim 4 with the following amended version thereof to incorporate the revisions set forth on the accompanying mark-up page:

- A<sub>3</sub>*
- 1           4.     (Amended)   A gas separator assembly for use with a direct oxidation  
2 fuel cell that includes a membrane electrode assembly having a protonically-conductive  
3 membrane electrolyte, with a catalyst disposed in proximity to the membrane electrolyte,  
4 said membrane having an anode face and a cathode face, and an anode chamber being  
5 defined within said cell contiguous to said anode and a cathode chamber being defined  
6 within said cell contiguous to said cathode, and when a fuel is introduced into the anode  
7 chamber, electricity-generating reactions occur in which anodically generated carbon di-  
8 oxide, electrons and protons are produced and when supplied with oxygen, cathodically-  
9 generated water is produced, the gas separator assembly, comprising:  
10           A)     an inlet end coupled with said anode chamber to receive anode effluent in-  
11                 cluding unreacted fuel and water and carbon dioxide; and  
12           B)     a conduit component coupled with said inlet end into which said anode ef-  
13                 fluent is conveyed, said conduit having walls comprised substantially of a  
14                 porous, hydrophobic material, and defining a tortuous path exiting said  
15                 conduit, whereby carbon dioxide is separated out from said anode effluent.

Please replace claim 5 with the following amended version thereof to incorporate the revisions set forth on the accompanying mark-up page:

- A<sub>4</sub>*
- 1           5.     (Amended)   The gas separator assembly as defined in claim 4, further  
2 comprising:  
3                 an outlet end having a cap member disposed within the outlet end and said  
4 cap member having a flow limiting orifice to generate back pressure within said  
5 anode effluent traveling in said conduit component, whereby anode effluent under

*A<sub>4</sub> conduit*

6 back pressure is pushed against the walls of said conduit and thereby into said  
7 tortuous path, to separate out carbon dioxide gas from said anode effluent.

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Please replace claim 7 with the following amended version thereof to incorporate  
the revisions set forth on the accompanying mark-up page:

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*A<sub>5</sub>*

1 7. (Amended) The gas separator assembly as defined in claim 4 wherein  
2 said conduit component is U-shaped, whereby carbon dioxide is separated from  
3 said anode effluent regardless of orientation of said assembly.

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Please replace claim 8 with the following amended version thereof to incorporate  
the revisions set forth on the accompanying mark-up page:

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*A<sub>6</sub>*

1 8. (Amended) The gas separator assembly as defined in claim 4 wherein  
2 said conduit component has a bend in it such that it is formed to be coupled with  
3 said anode chamber, whereby carbon dioxide is separated from said anode effluent re-  
4 gardless of orientation of said assembly..

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Please replace claim 9 with the following amended version thereof to incorporate  
the revisions set forth on the accompanying mark-up page:

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*A<sub>7</sub>*

1 9. (Amended) The gas separator assembly as defined in claim 4 wherein  
2 said conduit component is coiled, whereby carbon dioxide is separated from said  
3 anode effluent regardless of orientation of said assembly.

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Please replace claim 10 with the following amended version thereof to incorporate the revisions set forth on the accompanying mark-up page:

*a<sub>8</sub>* 1 10. (Amended) The gas separator assembly as defined in claim 4 wherein  
2 said outlet end is tapered to form a cone-like shape, whereby carbon dioxide is separated  
3 from said anode effluent regardless of an orientation of said assembly.

Please replace claim 11 with the following amended version thereof to incorporate the revisions set forth on the accompanying mark-up page:

*a<sub>9</sub>* 1 11. (Amended) The gas separator assembly as defined in claim 5 further  
2 comprising  
3 at least one of a T-junction fitting and a tube-in-tube fitting coupled to said con-  
4 duit component to capture said carbon dioxide separated from said anode effluent.

Please replace claim 13 with the following amended version thereof to incorporate the revisions set forth on the accompanying mark-up page:

*a<sub>10</sub>* 1 13. (Amended) The gas separator assembly as defined in claim 5 further  
2 comprising  
3 a catalyst applied to the exterior aspect of the gas separator assembly for oxidiz-  
4 ing any methanol vapor that is separated out of said anode effluent with said car-  
5 bon dioxide.

Please replace claim 14 with the following amended version thereof to incorporate the revisions set forth on the accompanying mark-up page:

A<sub>11</sub>

14. (Amended) The gas separator assembly as defined in claim 4 wherein the gas separator assembly is comprised of a plurality of fuel cells, each fuel cell having a membrane electrode assembly, and wherein said plurality of fuel cells are connected in a planar design.

Please replace claim 15 with the following amended version thereof to incorporate the revisions set forth on the accompanying mark-up page:

A<sub>12</sub>

15. (Amended) The gas separator assembly as defined in claim 4 wherein the gas separator assembly is comprised of a plurality of fuel cells, each fuel cell having a membrane electrode assembly, and wherein said plurality of fuel cells are connected in a stacked design.

Please add the following new claim 22:

A<sub>13</sub>

1 22. (New) The gas separator assembly as defined in claim 2 wherein  
2 said end cap of said outlet end is comprised substantially of a hydrophilic mate-  
3 rial.

Please add the following new claim 23:


A<sub>14</sub>

1 23. (New) The gas separator assembly as defined in claim 5 wherein said end  
2 cap of said outlet end is comprised substantially of a hydrophilic material.

Please contact the undersigned in order to advance the prosecution of this application in any respect.

Please charge any additional fee occasioned by this paper to our Deposit Account  
No. 03-1237.

Respectfully submitted,

  
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